

[GAS ASSISTED INJECTION MOLDING WITH FIXEDVOLUME GAS RESERVOIR AND TEMPERATURE CONTROL]

Abstract

A method and system for forming an injection molded plastic part. After the injection of plastic material has started, a volume of gas from a fixed volume reservoir is introduced into the plastic material at a low pressure forming a hollow cavity. The introduction of this volume of gas is initiated when the temperature of the plastic material in the mold has reached a predetermined value. After the mold is filled and packed with plastic, pressurized gas is introduced into the hollow cavity forming the completed plastic part.